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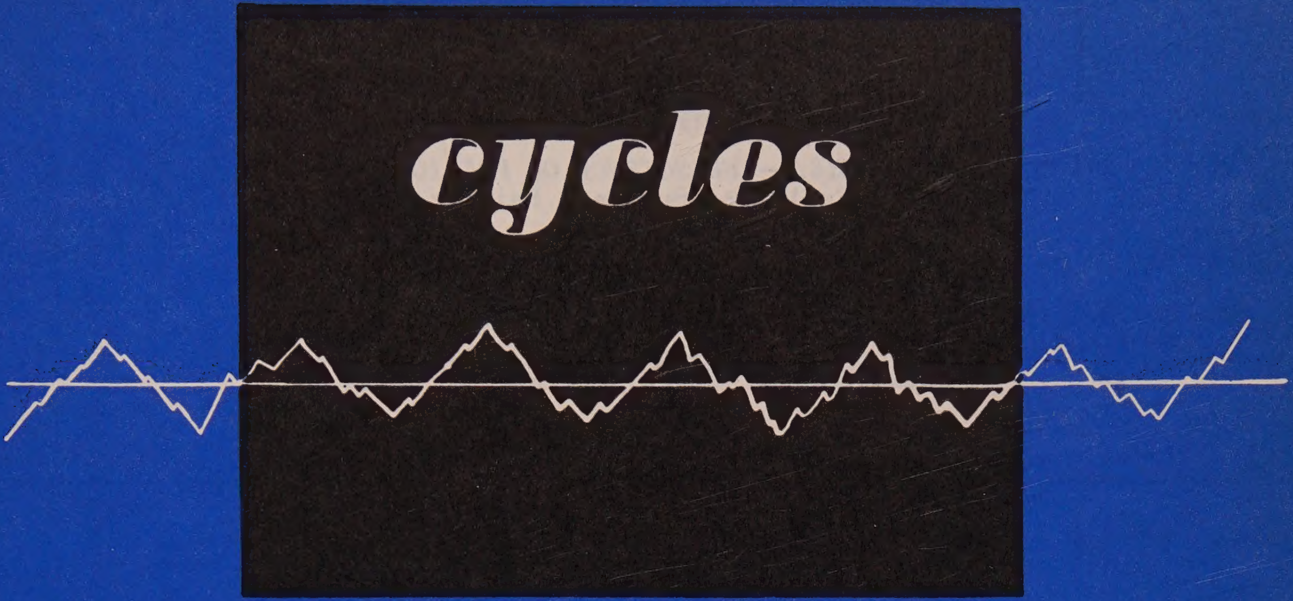

May 1957

FOUNDATION FOR THE STUDY OF CYCLES
New York, New York

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VOLUME VIII NUMBER 5 MAY 1957

THE DIRECTOR'S LETTER

Dear Member:

MAJOR PROJECTS

I find it helpful to maintain a list of "Major Projects." By having a list of this sort in front of me at all times I can keep constant pressure applied to each item.

At the moment there are 17 items on the list. This is too many to write about all at once. In this month's letter therefore I am going to write you about only four of the 17.

The Book on Growth Trends

A project close to my heart is a new book on growth trends to bring up to date and expand for you the first four chapters of the book *Cycles—The Science of Prediction* that Mr. Dakin and I wrote in 1944. These chapters dealt with underlying growth trends.

The underlying growth trend is the axis around which the cycles oscillate. Many people do not realize that, for our economy as a whole, and for each part of it as well, the *rate* of growth of the underlying growth trend is slackening.

There is a law of growth that applies to every living thing. It also applies to groups of living things, such as cities, nations, companies, industries. This law is that everything in the Universe grows at a slower rate as it gets older. I want to explain this law and show its application.

I want to show you the crue state of affairs for each of at least 30 of our major industries. Some of these industries have lots of growth left in them. Others are reaching their maturity. A few have already passed their peak and are now going down hill. It is important that you know which are which.

Even more important from the long range point of view is the basic growth and decay pattern of our civilization.

I am referring now to really long term trends of 1500 years or so in contrast to the growth trends of 200 years or so that I spoke of in the preceding paragraph. You can't understand the world in which we live, and see where we are headed, unless you know about this basic pattern of growth and decay. It has characterized some 19 civilizations that we know about. So far, our civilizations has conformed to the basic pattern.

And finally, there is one chapter that is—from the immediate standpoint—most important of all. This chapter concerns inflation and the growth trend of our national debt. If present tendencies are not reversed—and, politicians being politicians, I see no liklihood that they will be—I see disaster ahead.

My own thinking has been that this disaster would not come until after the next major war, but I am no longer so sure. I wish to point out the danger, the nature of the disaster, and how individuals can protect themselves against it.

I plan to run this book serially for you in the magazine *Cycles*. I hope to print the first installment next month.

The Book on Cycles

The time has come for another book on cycles. *Cycles—The Science of Prediction,* written in 1944, is as out of date as a woman's hat of 1920. The facts that I have been presenting to you in the magazine *Cycles* for the past seven years, and many other facts available in our library, need to be organized and arranged into more permanent form.

We really have the beginning of a science of cycles. I haven't counted, but I feel sure that I have dug up for you several hundred examples of cycles in perhaps 25 or 30 different departments of science. I've given you cycles in almost everything, from astronomy to zoology, and in a score of things in between.

We now have enough examples of cycles so that we can begin to organize and classify. We can group cycles of the same wave length, We can see which come first. We can see the extent to which these wave lengths are related to each other. We can see the emergence of geographical pattern. We can begin to tie the behaviors to behaviors outside the earth. In brief, we are in a position to get some order out of what at first seemed like chaos.

With the establishment of order we have the beginning of a science.

The new book on cycles was started in January 1956 with the first chapter of the so-called "1956 Postscript to *Cycles—The Science of Prediction.*" It is now fairly well along. All that remains to do is complete it, to reorganize it, to re-write it, and to get it published.

How to Make a Cycle Analysis

"How to Make a Cycle Analysis" is the name of a textbook of 23 lessons I wrote for the correxpondence course which we gave two or three years ago.

In response to considerable pressure from our members I am now preparing this text for distribution to persons who want to know what I have found out about the technical aspects of cycle analysis in 20 years of work.

I am not rewriting the text—that does not seem to be necessary—but I am adding a good many supplements to the various lessons to answer the questions brought up by the people who took the course. I am also including a good deal of additional material that I use in my own everyday work. All in all, including charts, etc., there are about 700 pages. A limited edition is now being prepared and will be ready for distribution by the time you read this letter.

If you are at all interested in how to make a cycle analysis of the figures you are interested in, write for the table of contents so that you can see the ground covered. Better yet, send your check for $50 for 10 days free examination. Money back in full if, for any reason, you do not wish to keep the material

The Cyclopedia of Cycles

A fourth book that I have in process of preparation is a Cyclopedia of Cycles to list *every* reference to cycles in any of the 36 disciplines in which rhythmic fluctuations have been observed.

I suppose we have 5,000 references in our own library alone. This will do for a start. Later we can follow the leads provided by our own books and reprints, and so on, from reference to reference, until we get the whole field covered.

The Cyclopedia was started for me last fall by Mrs. Catherine Herzel, the wife of a Lutheran minister who lived about 15 miles away in the little town of St. Petersburg (good place for a minister, eh what?). Unfortunately (from my point of view) Rev. Herzel had a call to Punxsutawney, Pa. about 50 miles away. Since then, contact has not been so easy. In the next few days I must run over to Punxsutawney—yes, there really is a place with such a name—to see if I can't get things going again.

These are four of the 17 projects that keep me out of mischief. I'll tell you about the other 13 some other time.

Yours for happy cycling,

Ned Dewey

Edward R. Dewey
Director

THE 1957 POSTSCRIPT

TO

CYCLES—THE SCIENCE OF PREDICTION

PART XII: TREND AND CYCLES OF BUSINESS FAILURES

"WHY are you so interested in failures?" asked my friend Robert Steele as we sat down for our usual Sunday afternoon chat about cycles.

Failures Are a Good Measure of Business

"Basically because failures are a pretty good measure of general business. When times are good, almost anyone can stay in business. When times get bad, it separates the men from the boys. By looking at the failures figures, or a chart of them, we can get a pretty good picture of the business situation—only of course the chart of failures is upside down relative to business conditions themselves. That is, when business is bad failures are up, and vice versa."

"What other measure of business do you watch?" asked Robert.

"Loads of them. Employment and unemployment are very good measures. Physical production is even better. The number of new incorporations also throws light on what's going on. So does the average number of hours worked. So do stock prices, though not to the extent that many people think."

"Why did you pick failures?"

"I didn't pick it to the *exclusion* of the other measures. I picked it in *addition* to the other measures. With something as basic as general business it is helpful to look at it from several different points of view. Moreover we have a good long string of failure figures. They are available for every year from 1857 forward. Month-by-month, too, if you want them, at least as far back as 1894."

"I think you said last week that you used *liabilities* of failures instead of *number* of failures?"

"Yes, it seems to be by far the more representative measure. Anyway, the cycles show up much better in the liability figures. 'Liabilities of commercial and industrial failures' is the correct description."

"What do these failures run a year?"

Failures Run Over $550,000,000 a Year

"About 550 million dollars at the present time."

"How does that compare with previous years?"

"Here is a chart showing the whole story, 1857—1956 See Fig. 1 . Notice the generally upward trend over the whole period. That is chiefly due to the fact that the country is getting bigger."

"What are those two big dips?" asked Robert.

"The one at the left came at the time of the Civil War; the one at the right at the time of World War II. Liabilities were very low during those two wars."

"How about World War I?"

"Well, as you can see, there was a bit of a dip, but it didn't amount to much."

Failures High During the '20's

"I'm surprised at the high level of failures all during the '20's. I thought that was a time of great prosperity."

"So did I, but the record says otherwise—at least for the poor devils who failed—and their creditors!"

"What about the future?" asked Robert.

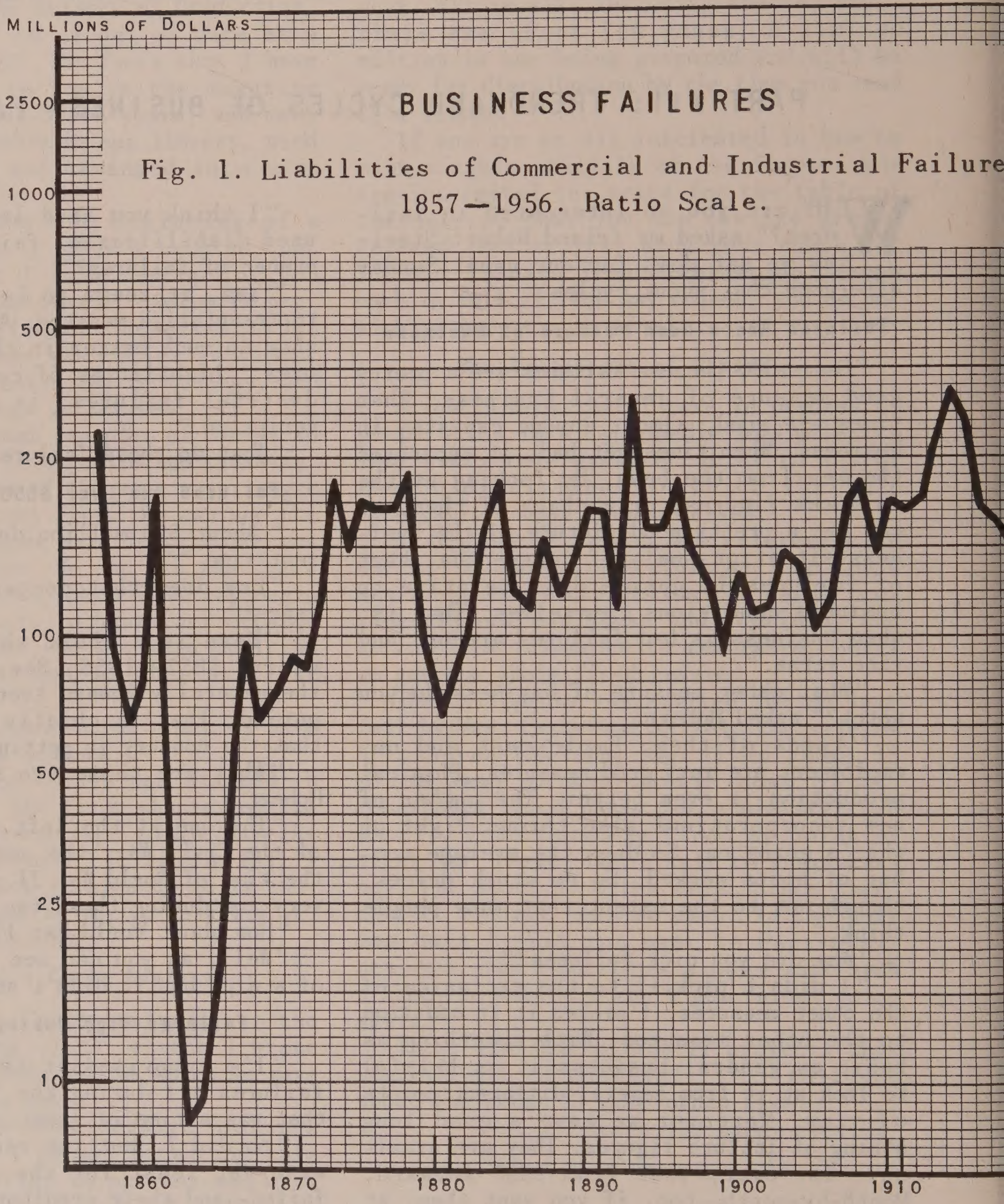
The Cycles Show the Future

"That's where cycles come into the picture." I answered. "If we can find any regularly recurring ups and downs in the figures of past years that have repeated so many times and so regularly that they cannot reasonably be the result of accident, they are likely to continue. If they do, they will control the future. And of course, automatically, a knowledge of these patterns throws light on the future, insofar as the patterns govern."

"Did you find any such patterns?"

"Yes, we found five."

"What do they show for the future?"



BUSINESS FAILURES

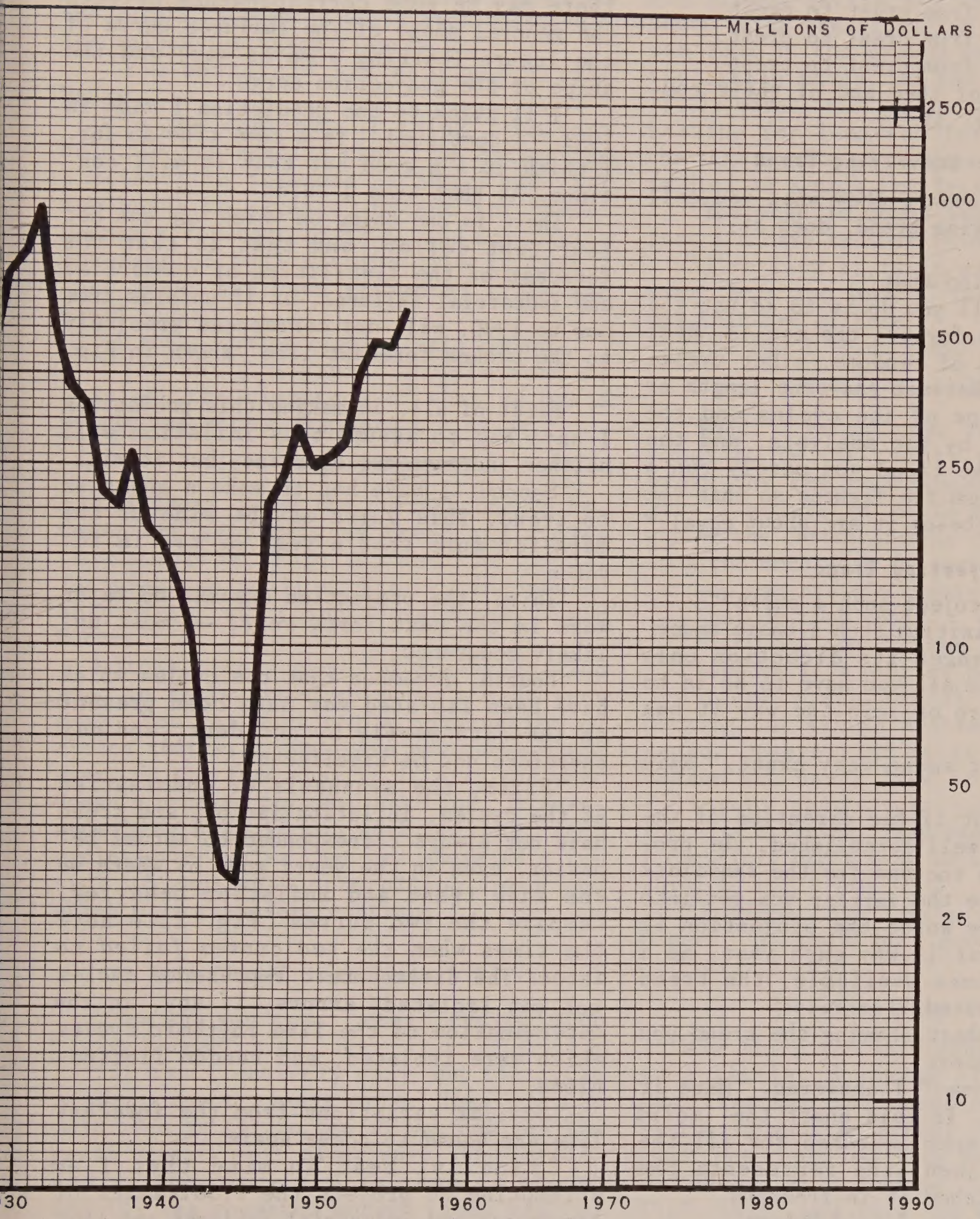
Fig. 1. Liabilities of Commercial and Industrial Failure
1857—1956. Ratio Scale.

"When combined with the long term trend and projected they show an *in*creasing number of failures (poorer business) year-by-year to 1961; then three years of *de*creasing failures (better business) to 1964; then four years of *in*creasing failures (poorer business) to 1968; then better business, and so on."

"Have you a chart of this?" asked Robert.

A Forecast Chart

"Yes," I answered. "Here is a chart [See Fig. 2] which repeats the one I just showed you [Fig. 1] and adds a broken line to show the combination of the five cycles



and the basic underlying trend line."

"What are the five cycles you found?"

The Five Cycles

"Their lengths, from longest to shortest, are—

17.75 years from crest to crest.
9.2 years from crest to crest.
6.5 years from crest to crest.
5.9 years from crest to crest.
3.42 years from crest to crest.

here is a chart of them and of their combination [See Fig. 3]."

The Basic Underlying Trend

"This chart doesn't show what you call the basic underlying trend, does it?"

"No."

"How do you find that?"

"It's easy. All you do is to adjust the original figures for all the cycles. What is left consists of randoms, other cycles. any differences between the true length or strength or shape of the cycles and the values revealed by the analysis, and the trend. To get the trend you merely run a smooth line through the figures so that the values above and below it are about equal."

Projecting Trend

"How do you project such a curve?"

"Well, by definition such a basic underlying trend changes its direction only slowly. Therefore all you have to do is to extend it in more or less the way it has been going."

"That doesn't sound very exact," said Robert.

"It isn't, but if the direction of the trend is pretty well established, the projection won't be too bad for the *immediate* future. Of course the farther you get into the unknown, the worse the projection is going to be. That is why each year, as a new figure becomes available, the trend should be recomputed."

"Have you a chart showing the trend you used?" asked Robert.

"Yes, of course," I answered. "Here it is [See Fig. 4]. In this chart the solid line shows failures adjusted for all the cycles. The broken line represents the trend, as I sketched it in freehand."

"Very interesting." said Robert.

"It is this freehand curve around which I wrapped the synthesis of the cycles [Curve F of Fig. 3] to get the combination of trend and cycles [the broken line of Fig. 2]."

"Do you think the projection will come true?" asked Robert.

"I wouldn't give a fig for the actual numerical values of the projection, but there may be some correspondence between the general shape of the failures curve of the future (barring a major war) and the shape of the projection curve.

"I'll stick to the prediction I made in 1953." I continued. "It's come true so far. I think it's a good bet that it will continue. At that time I said:

"There is one thing on which you can bet your last dollar, and that is that the forecast of the liabilities of commercial and industrial failures, as it unfolds from now to 1990, will *not* correspond precisely to the broken forecast line shown in Fig. 2 .

"First of all, in making this projection, I have had to assume that inflation will neither increase nor decrease, but it will.

"Second, I have had to make a guess as to trend. This guess may be wide of the mark for more than a year or two in advance.

"Third, the projection assumes no major wars in the next forty years—a most unlikely occurance.

"Fourth, remember that the cycles which have been isolated *may* have been present in the data merely by accident, and *may* therefore not be significant.

"Fifth, the synthesis or combination of the cycles, inflation factor, and trend have not always corresponded to actual behavior, even in the years gone by where we can know trend and inflation behavior. Compare the two curves [Fig. 2]to note the times when the two curves *failed* to agree. The divergence...represents cycles not yet isolated, errors, if any, in the determination of the five rhythmic cycles which were isolated, and random fluctuations.

"Similar variations from the forecast line are *bound* to occur again.

"Finally, bear in mind that I am attempting to project the *liabilities* of commercial and industrial failures and that these figures contain a large element of *price* as well as *depression.*

"In spite of all these qualifications, the projection from 1953 to 1990, [charted in Fig. 2], suggests that the liabilities of commercial and industrial failures may increase irregularly to a double top in the first and last part of the decade of the 1960's, after which we should have, in the 1970's, number of years with relatively low values for these figures."

"You certainly are cautious," said Robert.

"To the contrary, I think I am very bold. Do you realize that I am attempting a scientific forecast of human behavior for years in advance. Except for Samuel Benner's forecast of 1874, and Marechal's forecast of 1933 nothing like it that I know about has been attempted since the world began."

"I guess you're right." said Robert.

"You bet I'm right. People tend to overlook the magnitude of what we cycle people are attempting—and achieving."

Close Correspondence

"It seems to me the correspondence between the synthesis of trend and cycles [broken line, Fig. 2] and the actual failures solid line, Fig. 2 is remarkably close, all things considered." said Robert.

"It is pretty good." I answered. "Too good in fact. But that doesn't mean very much. You can work out a combination of cycles that will duplicate any curve whatever. So the fact that it fits in the past doesn't *necessarily* mean anything. It means something only if you work out the *right* cycles—the cycles that are there as a result of some real controlling force and which will therefore continue."

To Tell "Real" from "False" Cycles

"How do you tell "real" cycles from "false" ones?"

"It isn't entirely easy and the cycle student isn't always sure. However, the main idea is (1) to see if you can see the cycle repeat, wave after wave, If you can, and if the cycle (2) is regular enough and (3) has repeated enough times and (4) is of a well established length, you can be pretty sure you have a "real" cycle."

How to Separate Cycles

"Another thing that bothers me is how you can see more than one cycle in the same set of figures at the same time."

"Basically it's simple. Suppose you were at the seashore out on a life raft. Great big ground swells are coming in. Little short waves are riding on their backs. You can look at the ground swells and ignore the little waves, or you can look at the little waves, and ignore the ground swells. Looking for long and for short waves in the same series of figures at the same time is just as simple—at least in principle."

"You make it sound very easy, but I'm sure I'd have trouble in doing it."

"I've said it isn't always easy. However there are lots of techniques you can use that are of help."

"How can I learn them?"

Help Available

"Well, I've put down everything I know about it in the twenty-three lessons I wrote for the correspondence course we gave a couple of years ago. We are not giving the correspondence course any more—it's too much work to correct the papers—but you can buy the twenty-three lessons."

"What do they cost?"

"Fifty dollars for the set."

"Suppose it's over my head?"

"I don't see how it could be. It's nothing but simple arithmetic and common sense. However, if it is, or if for *any* reason you don't like it, or it doesn't fill your needs, get your money back! There is a ten-day free examination period. I certainly don't want to sell anybody anything he can't use."

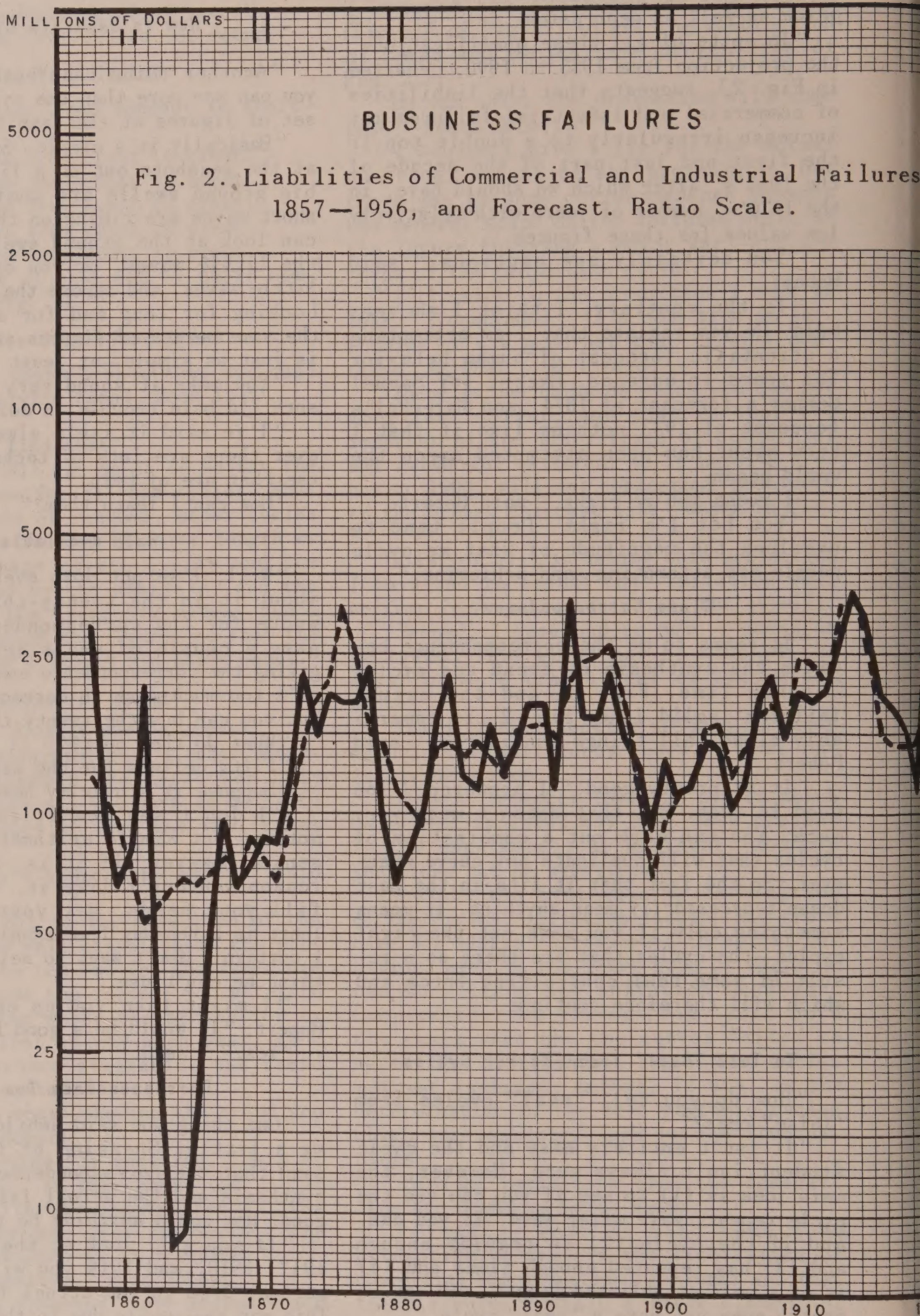
"I might take you up on that." said Robert. "It would be a good hobby too."

"Yes." I said.

Correspondence Too Good

"One thing you said awhile back bothers me a little. Speaking of failures, you said that the correspondence between your synthesis and the actual failures was *too* good. How could *anything* be *too* good?"

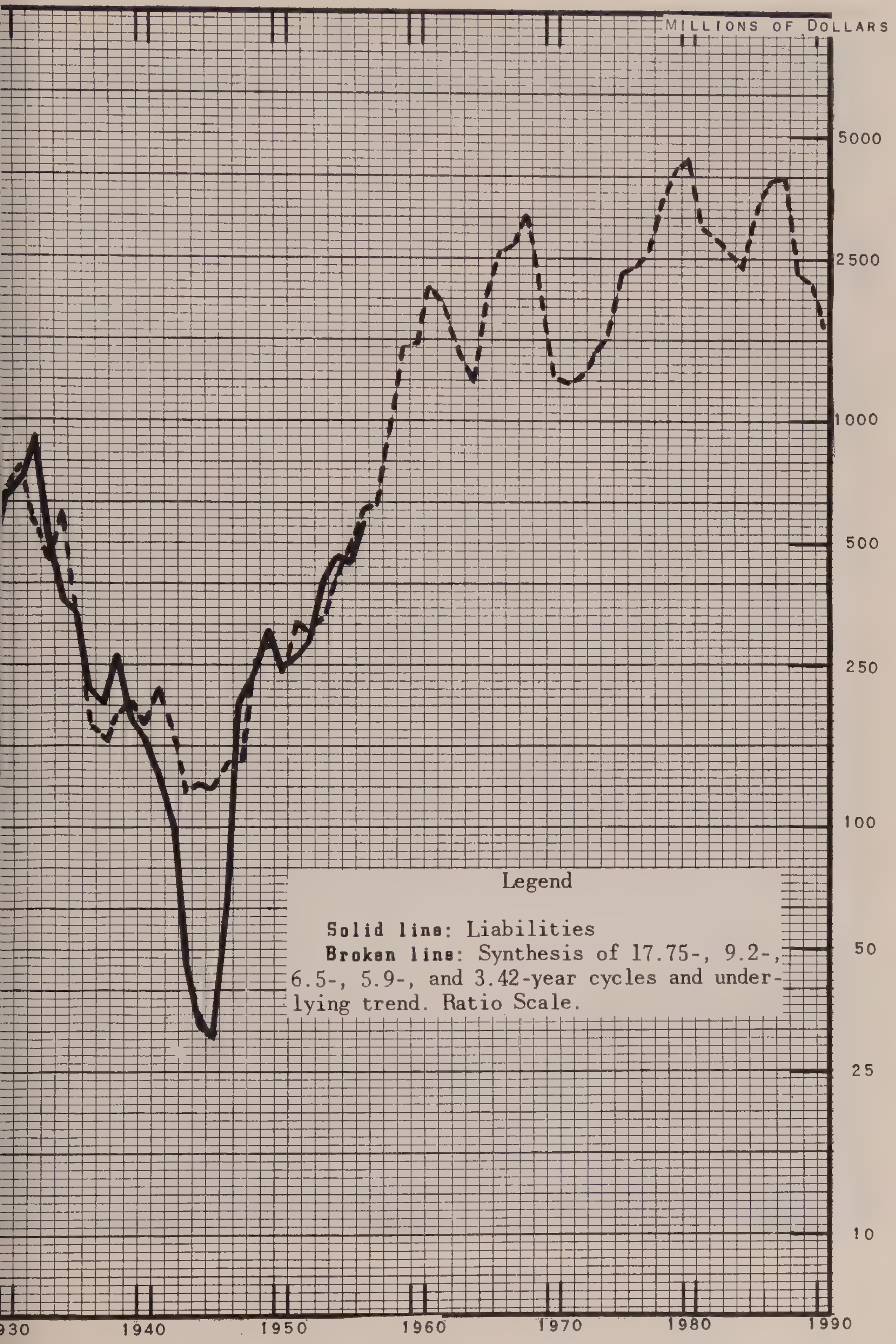
"If you will look at the period 1916, 1917, 1918, and 1919 you will see an important drop in the actual failure curve. This was presumably due to the better busi-



BUSINESS FAILURES

Fig. 2. Liabilities of Commercial and Industrial Failures 1857—1956, and Forecast. Ratio Scale.

In respect to the projection, remember that the trend is purely conjectural. *Actual* values are not to be depended upon; *relative* change from year to year may however be accepted subject to the qualifications stated in the text. Let no one say, "Failures of such and

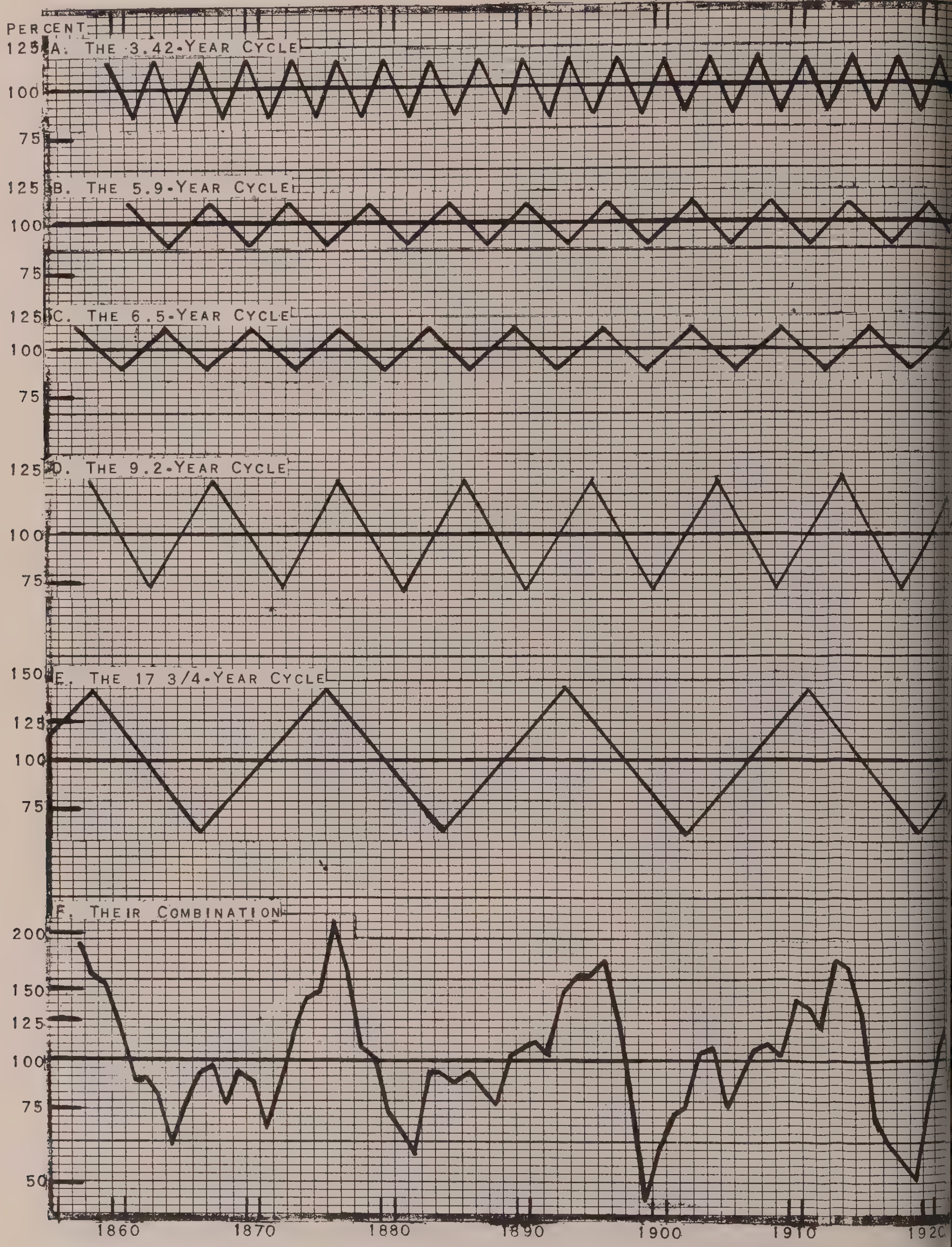


Legend

Solid line: Liabilities

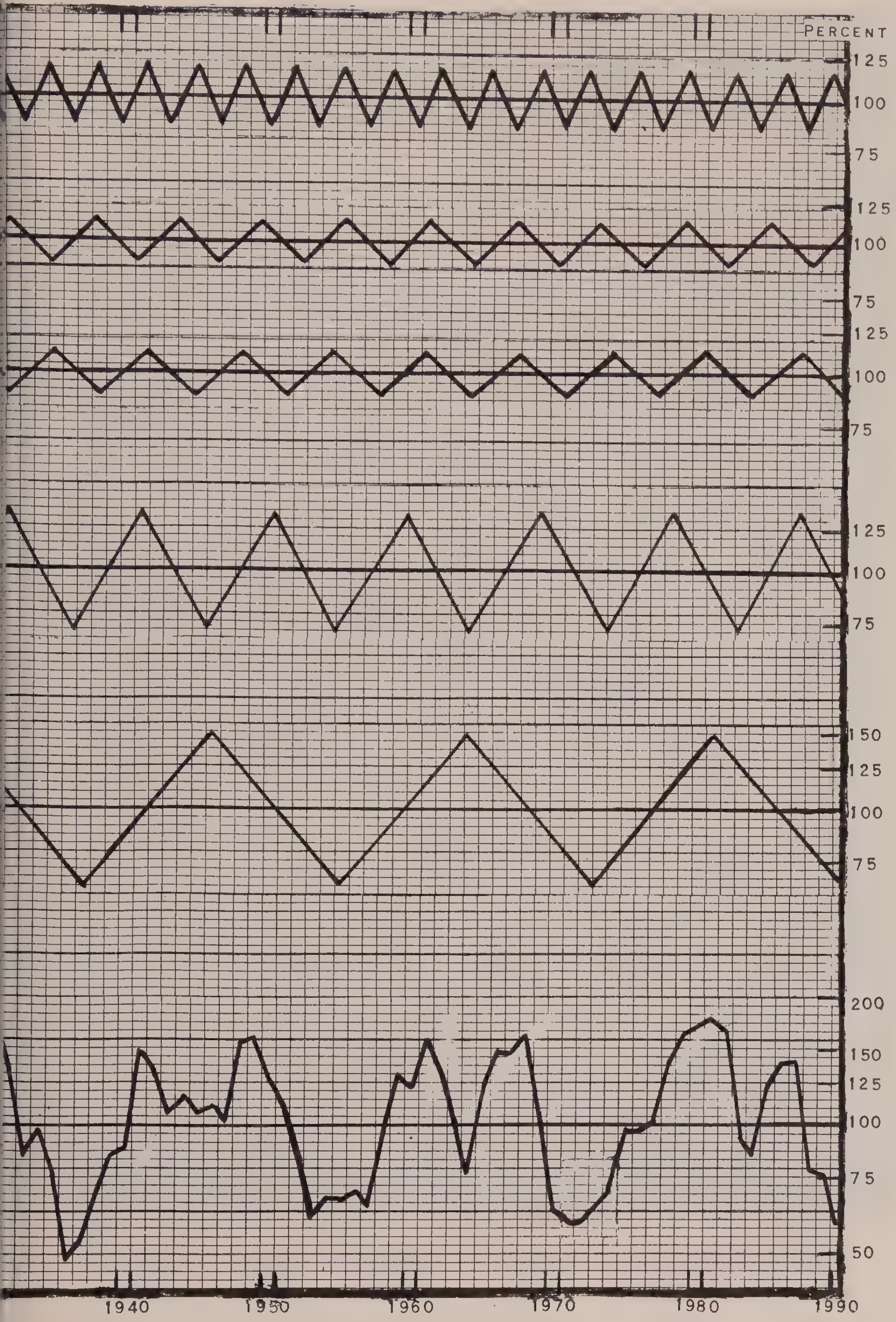
Broken line: Synthesis of 17.75-, 9.2-, 6.5-, 5.9-, and 3.42-year cycles and underlying trend. Ratio Scale.

such an amount were predicted for such and such a year." Rather say, 'Barring war, etc., the probabilities are that failures in 1961 will be greater than now; that failures in 1964 will be less than in 1961, that failures in 1968 will be greater than in 1964, etc."



BUSINESS FAILURES

Fig. 3. Summary of Cycle Analysis Showing All Cycles Isolated and the Combination of All Cycles. Ratio Scale.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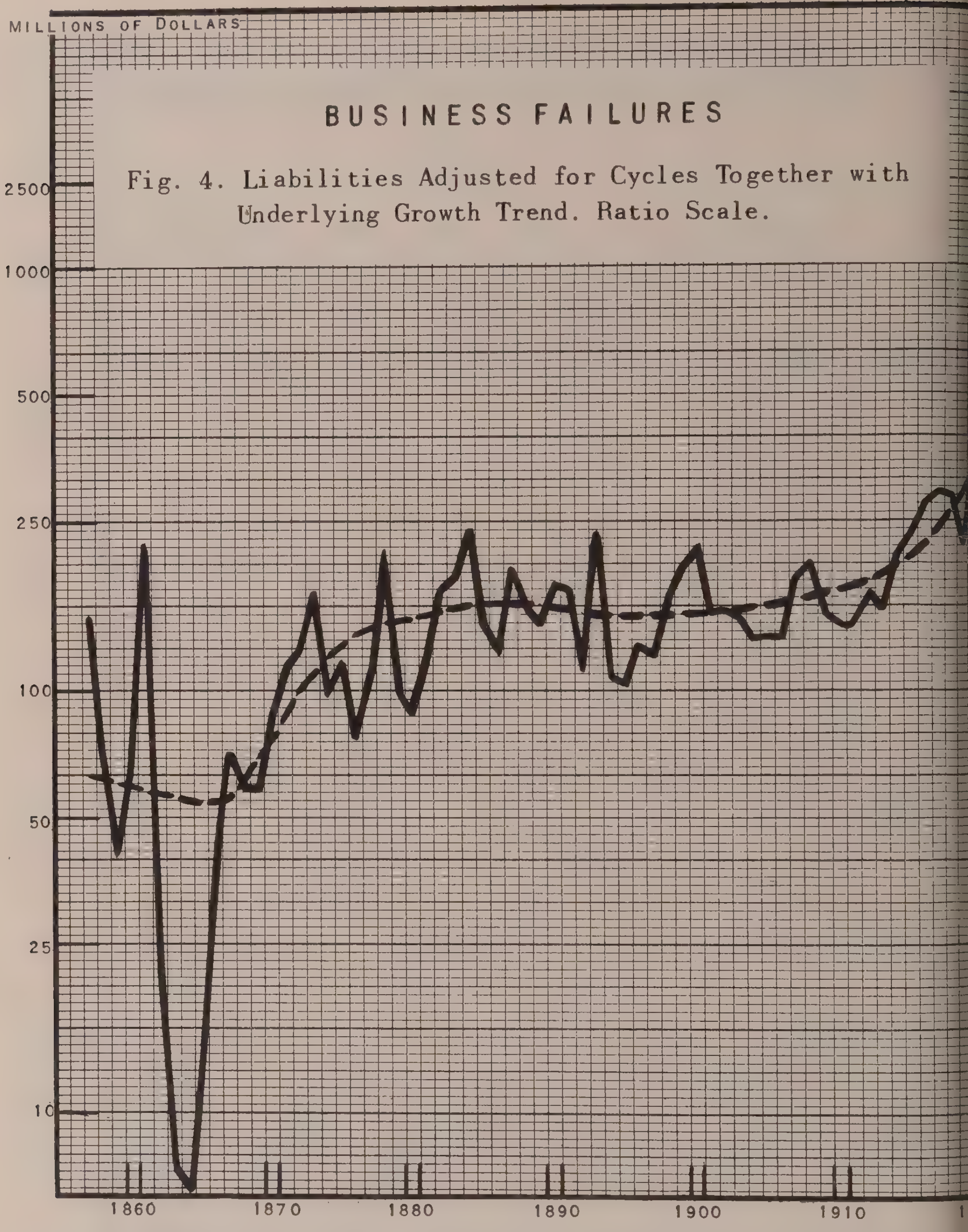
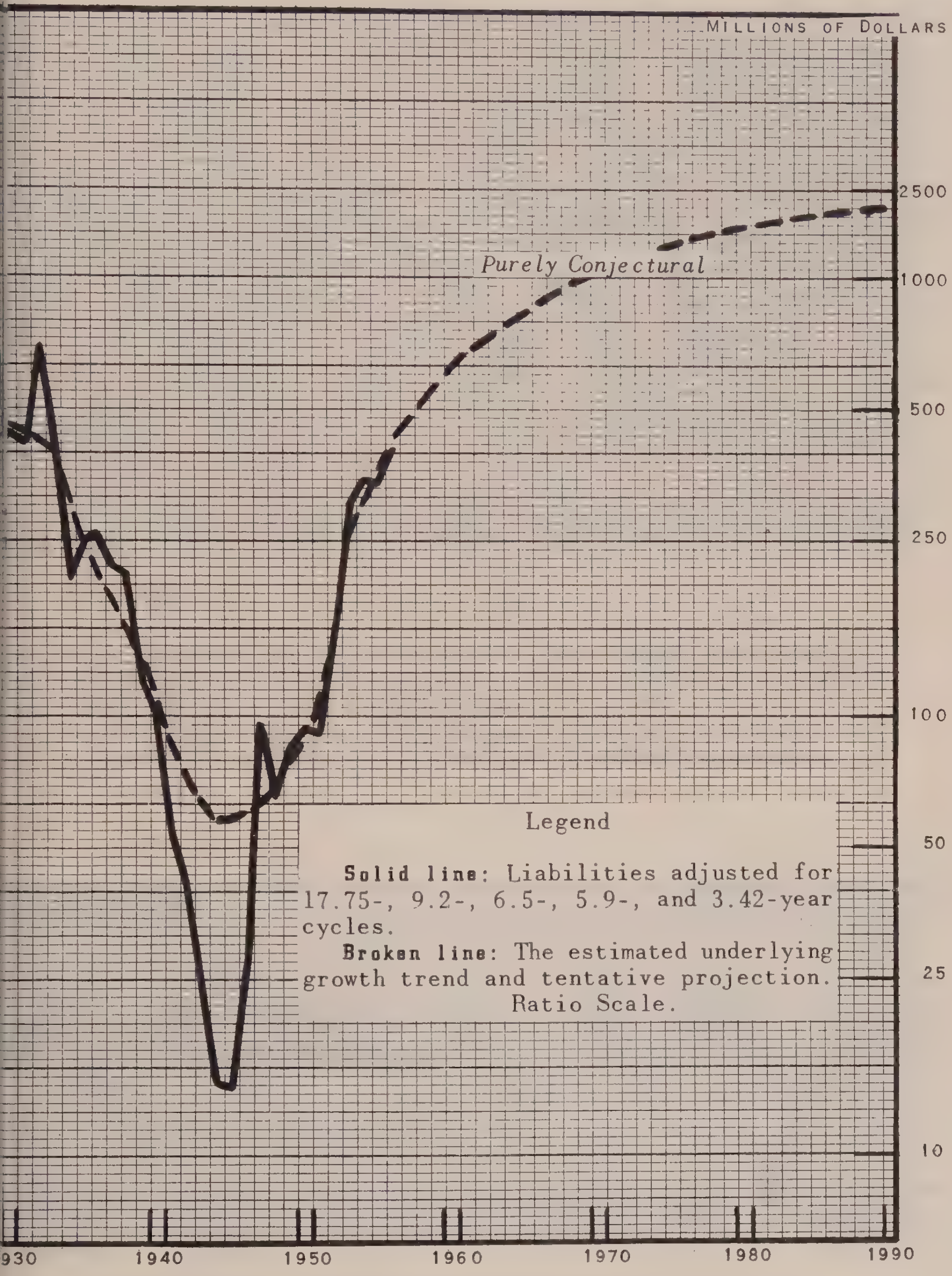


BUSINESS FAILURES

Fig. 4. Liabilities Adjusted for Cycles Together with Underlying Growth Trend. Ratio Scale.

Remember that the projection of this trend is pure conjecture. I



Legend

Solid line: Liabilities adjusted for 17.75-, 9.2-, 6.5-, 5.9-, and 3.42-year cycles.

Broken line: The estimated underlying growth trend and tentative projection.

Ratio Scale.

ould be revised each year as additional figures become available.

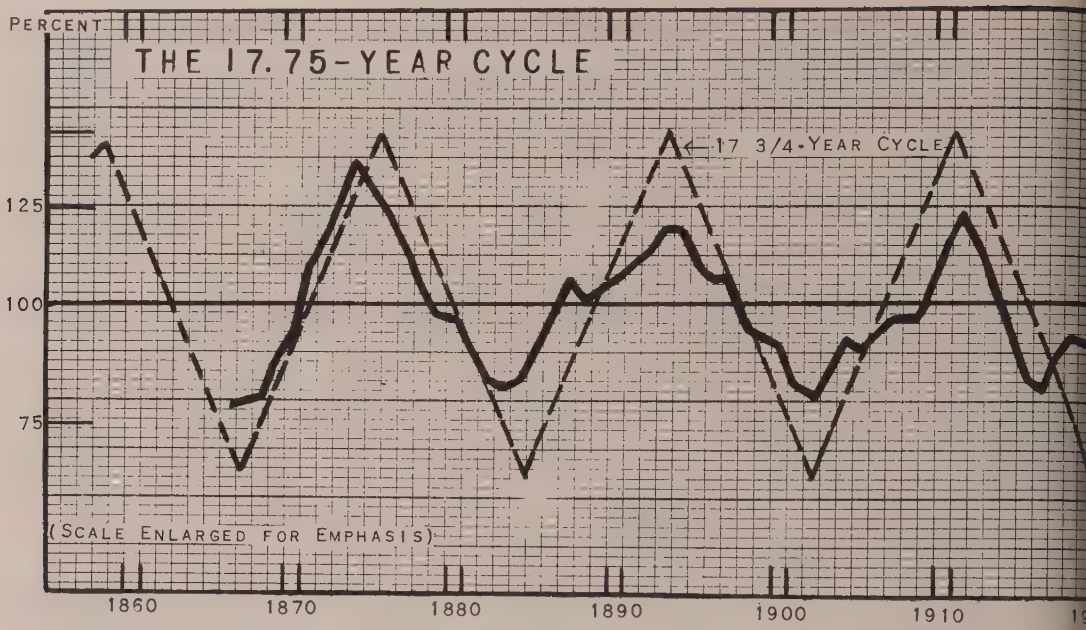


Fig. 5. Business Failures - The 17.75-Year Cycle

Solid Line: Percentages that the values of the 9-year moving average of the data (adjusted for Civil War and World War II) are of the values of the 18-year moving average trend of these same figures. Heavy portion, 1943--1947, shows how the cycle has unfolded since discovery.

Broken Line: Perfectly regular 17.75-year cycle. Ratio Scale.

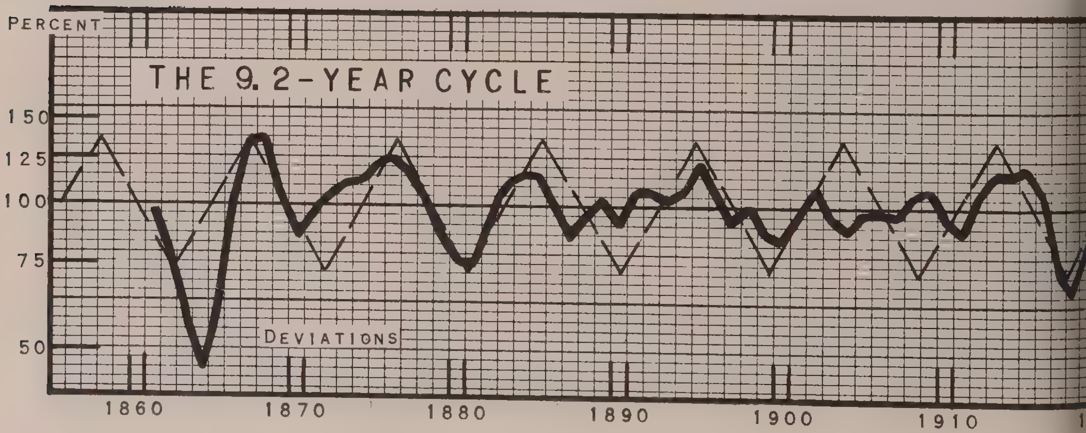


Fig. 6. Business Failures - The 9.2-Year Cycle

Solid Line: Percentages that the values of the 5-year moving average of the data are of the values of the 9-year moving average of the data. Heavy portion, 1948--1952, shows how the cycle has unfolded since discovery.

Broken Line: Perfectly regular 9.2-year cycle. Ratio Scale.

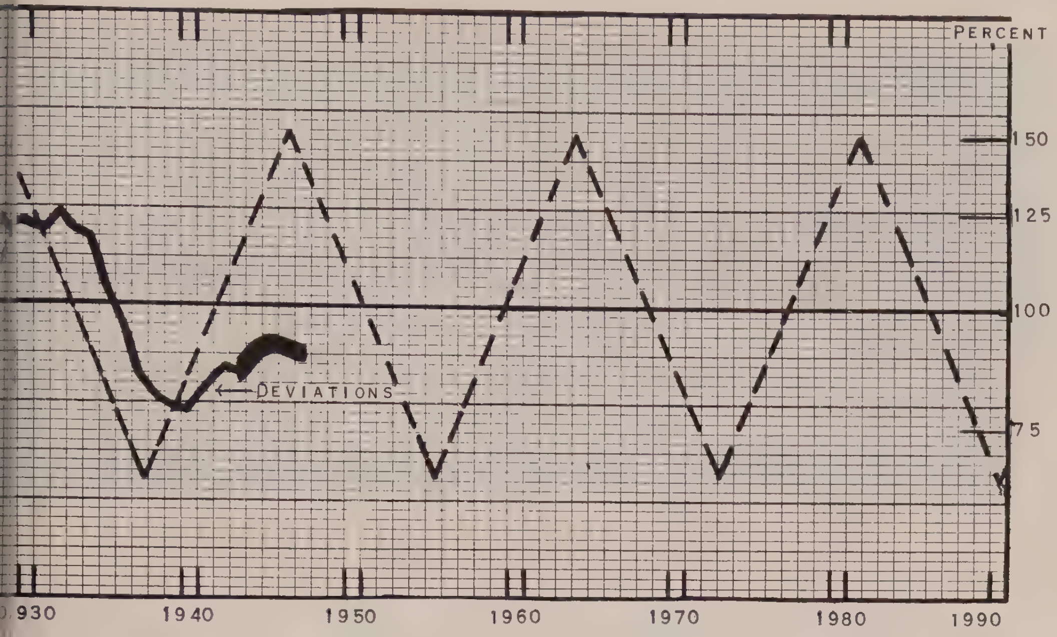


Fig. 5. Continued

The curve stops in 1947 because the 18-year moving average trend cannot be computed past this point until we get the figures for 1957 and later years.

However, this fact makes no difference because all we are interested in here is to see how regular the cycle is and how it has come out since discovery.

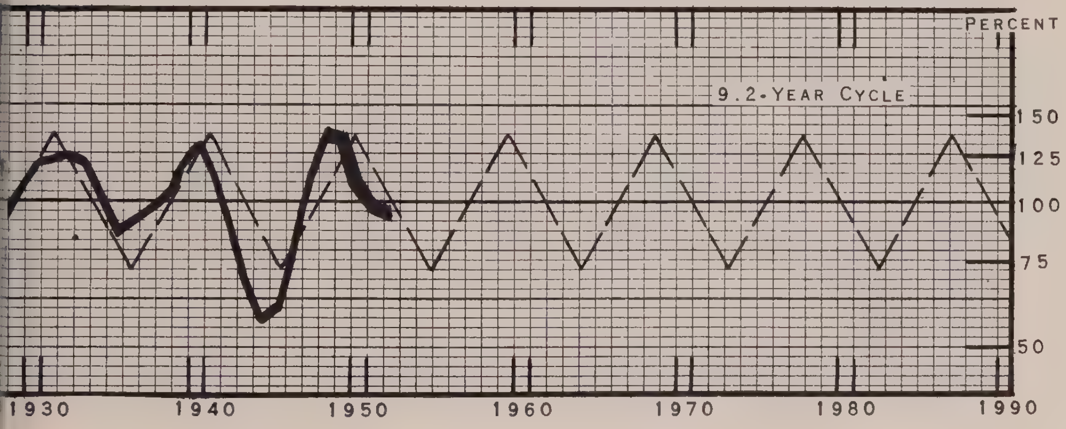


Fig. 6. Continued

The curve stops in 1952 because the 9-year moving average trend cannot be computed past this point until we get the figures for 1957 and later years.

However, this fact makes no difference because all we are interested in here is to see how regular the cycle is and how it has come out since discovery.

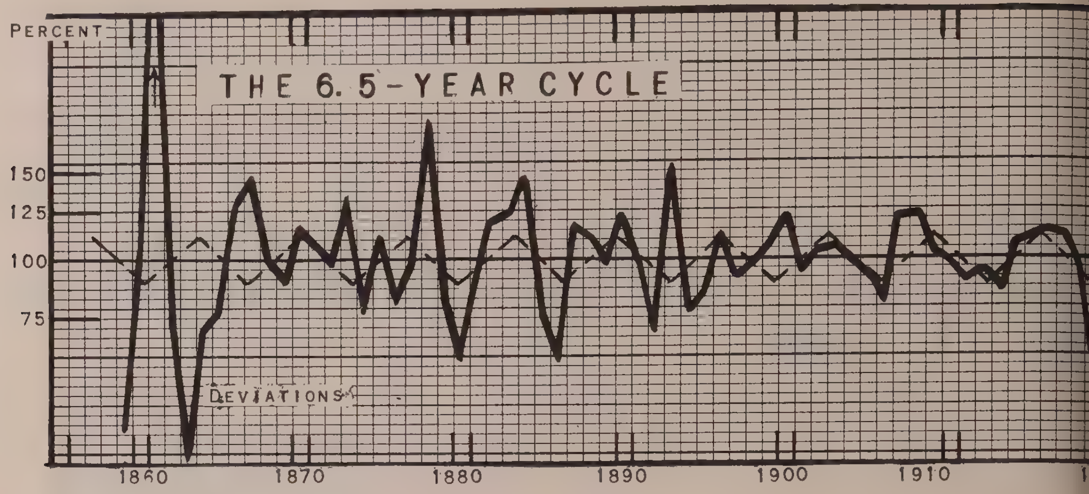


Fig. 7. Business Failures - The 6.5-Year Cycle

Solid Line: Percentages that the data, adjusted for the 17.75-, 9.2-, 5.9-, and 3.42-year cycles, are of the values of the 5-year moving averages of these figures. Heavy portion, 1950--1954, shows how this cycle has unfolded since discovery.

Broken Line: Perfectly regular 6.5-year cycle. Ratio Scale.

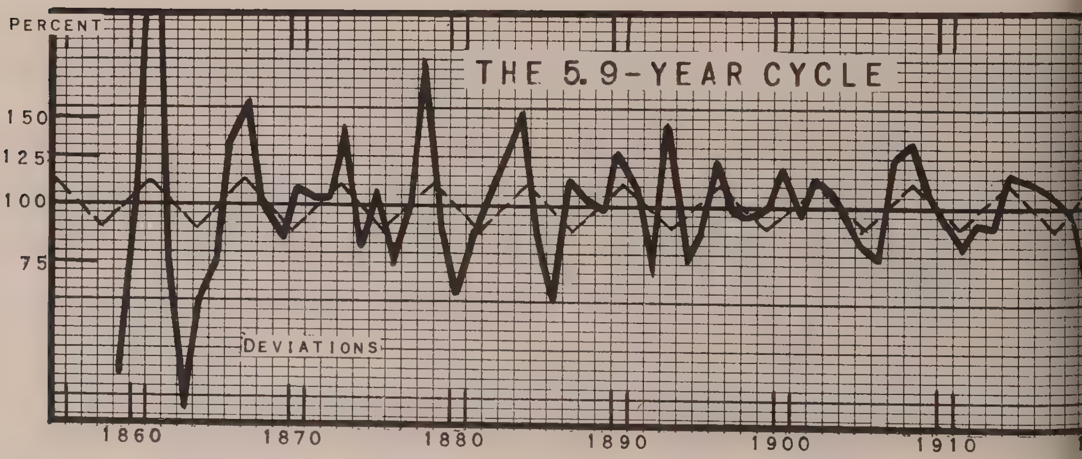


Fig. 8. Business Failures - The 5.9-Year Cycle

Solid Line: Percentages that the data, adjusted for the 17.75-, 9.2-, and 3.42-year cycles are of the values of the 5-year moving averages of these figures. Heavy portion, 1950—1954, shows how this cycle has unfolded since discovery.

Broken Line: Perfectly regular 5.9-year cycle. Ratio Scale.

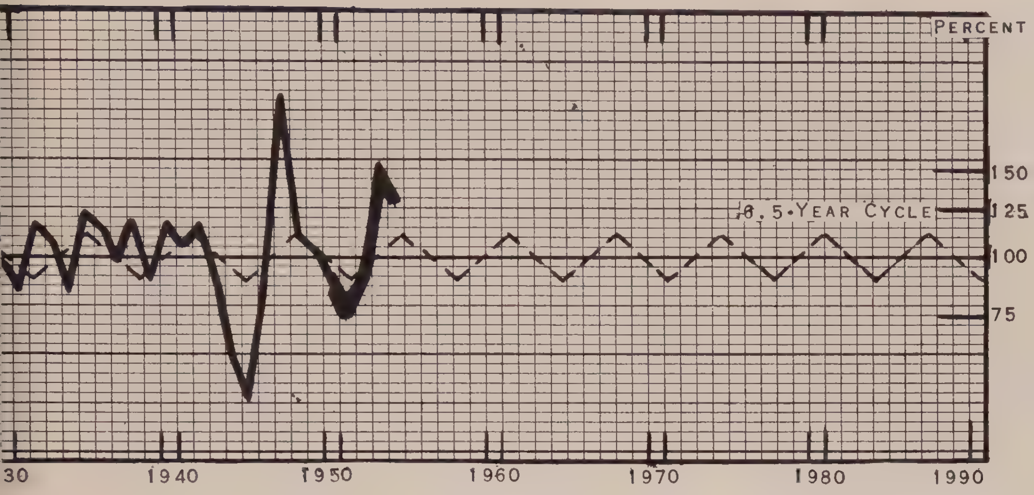


Fig. 7. Continued

The curve stops in 1954 because the 5-year moving average trend cannot be computed past this point until we get the figures for 1957 and later years.

However, this fact makes no difference because all we are interested in here is to see how regular the cycle is and how it has come out since discovery.

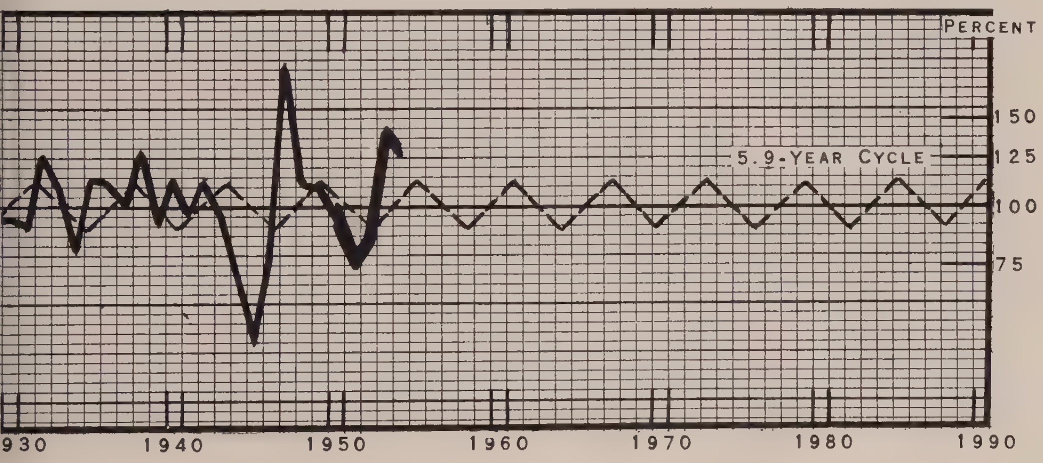


Fig. 8. Continued

The curve stops in 1954 because the 5-year moving average trend cannot be computed past this point until we get the figures for 1957 and later years.

However, this fact makes no difference because all we are interested in here is to see how regular the cycle is and how it has come out since discovery.

ness brought about by the war, and not due to the cycles. That is, it was presumably a drop of the sort we had at the time of the Civil War and at the time of World War II. However, if you look at the broken line for this same period you will see that combinations of cycles dipped at this time too. If we are to believe the synthesis, the reduction of failures during World War I was due to cycles and not to the war at all. On the other hand, the Civil War and World War II did definitely reduce the failures. What I'm getting at is that the dip in the synthesis curve just at this time suggests that the synthesis may be in part a mere description. I'd feel better about the synthesis if it *didn't* conform for this period. I'd like to do the whole job over leaving this period out of consideration entirely to see if we still had this same dip in the synthesis. I think we would, but I'd like to be sure."

"Can you do that?"

"Oh my yes." I answered. "When I made my original stock market study in 1944 I left the whole period 1925 to 1935 completely out of consideration. I just scratched out all these figures and left the chart for these years a blank. I felt that this period was so abnormal that it couldn't possibly be the result of the cycles. I thought the major 1929 peak and the ensueing collapse was the result of some non-cyclic distortion, for we had never had anything like it before. When I got through with the work and combined the cycles I had found using only the periods 1854-1925 and 1935-1943 I was amazed to see that the combination of cycles did in fact build up to the peak of 1929 and the trough of 1932! Apparently 1929 and 1932 were not distortions at all but were the result of a number of different cycles in combination."

"Very interesting." said Robert.

"If you buy those lessons, 'How to Make a Cycle Analysis,' you can try your hand at doing my failure study over again, leaving out the war periods. See if you still get the same cycle length, strength, and timing. If you do we can conclude that the low failures—good business—in 1916, 1917, 1918, and 1919 would have come even if we had had no war."

"I'll make that my first project."

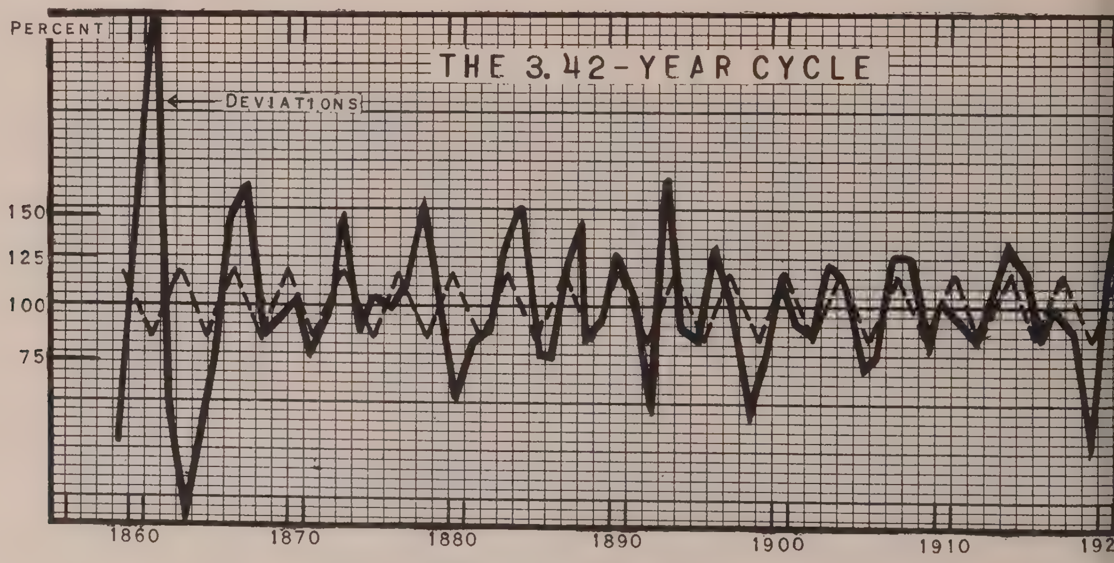


Fig. 9. Business Failures - The 3.42-Year Cycle

Solid Line: Percentages that the data are of the values of their 5-year moving average. Heavy portion, 1950—1954 shows how this cycle has unfolded since discovery.

Broken Line: Perfectly regular 3.42-year cycle. Ratio Scale.

"Good." I said.

How the Failure Cycles Came Out

"How have all these various failure cycles come out since you first discovered them?"

"The original work was done in 1953. That's only four years ago. That's not very long to tell us for sure, one way or the other. However for what it's worth I'd be glad to show you."

"Have you made any changes since 1953?"

"Not in the cycles or their synthesis, but with four more years to work with I have revised the underlying growth trend. As I said above, this should be done each year."

"Now show me how the cycles came out."

The 17.75-Year Cycle

"Let's start with the longest, the 17.75-year cycle. Here is a chart showing it [See Fig. 5]. In this chart I have smoothed out the short cycles by smoothing the raw data (adjusted for war) by means of a 9-year moving average. I then got rid of the long cycles by smoothing the raw data adjusted for war by means of an 18-year moving average and expressing the 9-year moving average values as deviations—that is, as percentages above or below the 18-year moving average trend. The heavy black line from 1943 to 1947 shows how the 17.75-year cycle has unfolded since discovery."

"Pretty good, I'd say." said Robert. "The crest is below the axis line but it seems to be turning over at just about the right time."

"Yes." I said, "But we really need 15 or 20 more years before we can get convincing evidence in regard to the continuation of a cycle as long as this."

"I suppose the reason the chart stops at 1947 is because the 18-year moving average trend cannot be computed past 1947 until we have some more figures?"

"Yes."

"What is your next one?"

The 9.2-Year Cycle

"The 9.2-year cycle. [See Fig. 6]. This one came out pretty well too."

"Remarkable!" said Robert. "Just what

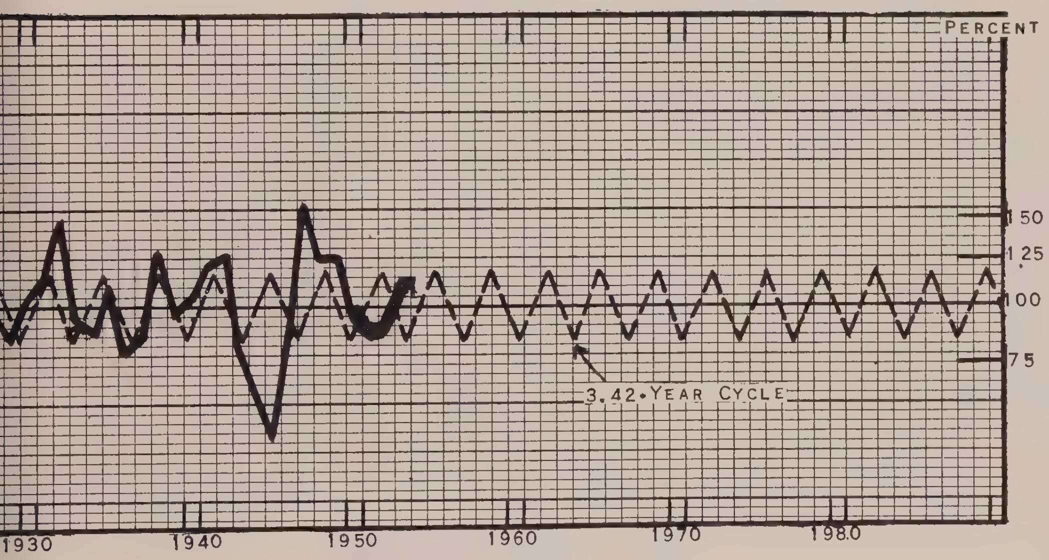


Fig. 9. Continued

The curve stops in 1954 because the 5-year moving average trend cannot be computed past this point until we get the figures for 1957 and later years.

However, this fact makes no difference because all we are interested in here is to see how regular the cycle is and how it has come out since discovery.

is this curve?"

"In this case we got rid of the distorting effects of the short cycles—short, that is, relative to nine years—by smoothing the raw data with a five-year moving average."

"Do you always smooth by a moving average about half the length of the cycle?"

"Usually half or a third. Then we got rid of the longer cycles—long relative to nine years—by smoothing the raw data by means of a 9-year cycle and expressing the 5-year moving average values as percentages of the 9-year moving average trend. The bold line from 1948 through 1952 shows how the cycle has unfolded since discovery."

"Couldn't you guess the 9-year moving average values up to date so that we could see this cycle past 1952?"

"Yes, but what good would that do? We are trying to see how the cycle really came out. If my guess were wrong the comparison would be misleading."

The 6.5-Year Cycle

"What is your next cycle?"

"The 6.5-year one. Here is a chart of it [See Fig. 7] . For this one I didn't do any smoothing at all. I did however make the 6.5-year cycle easier to see by adjusting the original raw data for the effect of the 17.75-, 9.2-, 5.9-, and 3.42-year cycles and expressing these adjusted values as percentages of their 5-year moving average trend. The way the cycle came out since discovery is shown by the heavy line from 1950 through 1954."

"This is pretty good too." said Robert.

The 5.9-Year Cycle

"Good enough." I said. "Now let's look at the 5.9-year cycle. This chart [See Fig. 8] is the same as the one I just showed you [Fig. 7] except that the 5.9-year has not been removed. It has come out pretty well, also."

The 3.42-Year Cycle

"Isn't there one more?"

"Yes, the 3.42-year or 41-month cycle. In this chart [Fig. 9] you see the percentages by which the actual figures are above or below a 5-year moving average trend. As you can see from the heavy black line, this one has come out very badly."

"Does that mean there isn't a 41-month cycle in these figures?"

"Oh no, not at all. There have been a number of instances where the 3.42-year cycle has been off the track as badly as this before. I'd certainly not reject a cycle just because it failed for a wave or two. However, this curve doesn't give the 3.42-year cycle the corroboration that it would be nice to have."

"One thing more I want to ask you before I forget it." said Robert. "At the very beginning where you were talking about the 17.75-year cycle you spoke of getting rid of the 'longer' cycles. Are there any cycles in failures longer than 17.75 years?"

Longer Cycles

"There is at least one, as you can see for yourself." I said. "It's about 42 years long. Look at the chart of trend [Fig. 4]. Note the softness in the early '60's, the '00's, the late '40's, and the strength about halfway in between."

"Yes, I see." said Robert. "However, if you see this longer cycle why didn't you isolate it and include it in the synthesis?"

"It doesn't repeat enough times for me to be sure that it is more than an accident. I'd rather pass it up until I know more about cycles of this length."

Hindsight Ahead of Time

"This has been most interesting and informative." said Robert. "I feel as if I had a peek around the corner into the future—a bit of 'hindsight ahead of time.'"

"I think you have." I answered.

"'An increasing number of failures (poorer business) year by year to 1961; then three years of decreasing failures (better business) to 1964; then four years of increasing failures (poorer business) to 1868; then better business, and so on.' I must remember that!"

"Don't hold me to the exact year, but I wouldn't be too surprised if something like that turned out to be in the cards. I think that gives you as good a picture of the future as you can get from what work I've done so far on failures."

"How have they been running since 1956?" asked Robert.

"Here is a chart that shows you, month-by-month, right up to date. See Fig. 10."

"They certainly look to be on the up grade."

"They certainly do!" I said. "It seems to me that at the present time caution is the watchword." *Edward R. Dewey*

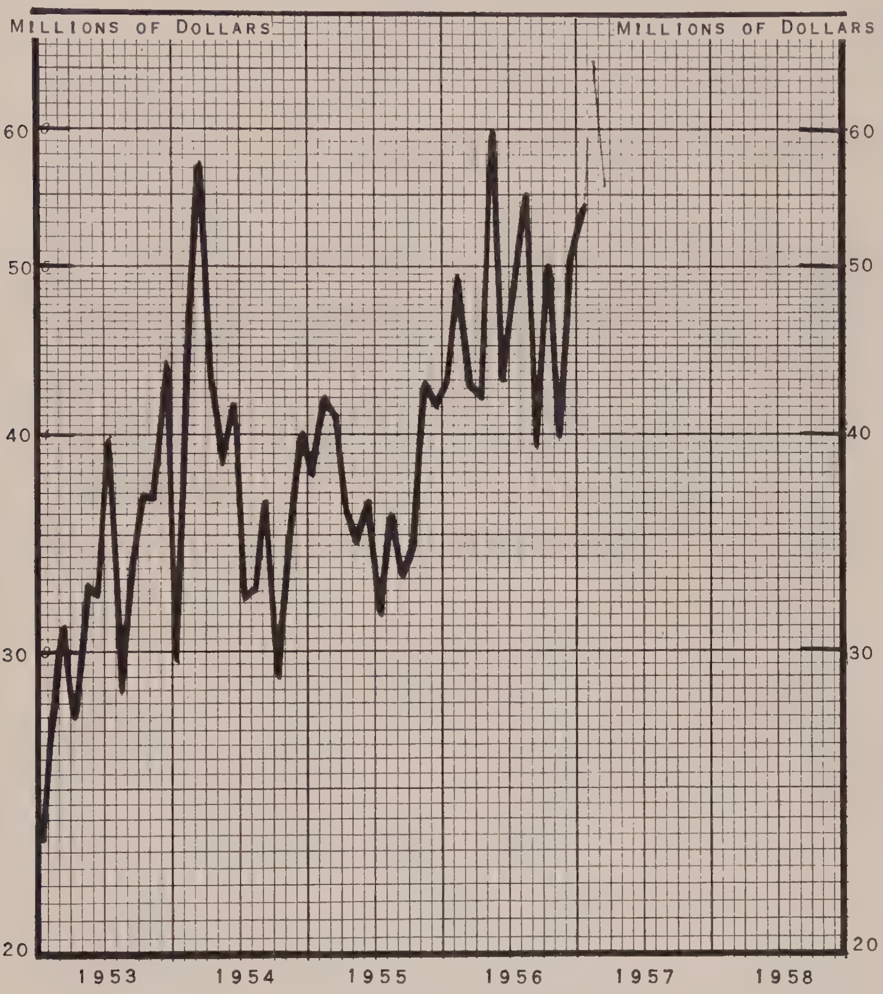


Fig. 10. Business Failures

Liabilities of Commercial and Industrial Failures by Months, January 1953—March 1957. Ratio Scale.

Letters

Dear Sir

Just in receipt of your circular & note all Yes many things sound good But let me tell You we are all guessing I am past 93 & Have been quite active allmy life In Minining Cattle raising fruit &) other grains & gambled on several thousand acres of land in and Around Miama Fla Also Corpus Christa Tex & note where You sayb Have Been working along the line you are now in & have in you past advised others of certain Investements 6o years ago now then if you had done as I did I did not advised others but I just took the bull by the horn & went in debt & invested & held some of my land in Miama & Corpus Christa Tex for 6o years & A few weks ago sold some 2oo acers at Miama for 16oo Per acre net to me same at Corpus Christa Tex but had sold much of my holdings A cupple years ago that tribbled my money but not such prices as are now & now as offered 2ooo an acre for the bal of my holdings at Miama Fla & to could have bought UNion P C rr at 4 dollars per loo sam on General Moters Santa fee but just had gone in debt so deep just could not as I was inthe Wholesale Fruit & Prod & Whole sale Gro Buis & Had A rubber factory & president of A mining co that 1 paid out during the life of same 18 millions in Div then ran out of ore so no no more Just telling ylou of few of my past now I am heavely invested in many Stocks some good div payers some just fair & also quite A lot invested n Canadian stocks but many may not pan out but feel most of them are very good for A furture but am just guessing Now I take 2 servises & they are all like in my opinion they just guess & then tell the public what they think & they did tell me of A few that proved up & so I took them on now ofcourse if ome of your guess you would tell me abut & I took on I would not hesetate to to take your service on but ofcourse I would not feel like doing so without irst proff not what you have done in the past but the future otherwise I could say when looking back at my past if had only just stayed with all of my past & just set still & kept them where I would be like had iooo Shares of S Steel before the Split at 3o now see where it is also Beathulum Steel at the low fig but sold most or half of same still hold half of them & bought more at the higher price but they are good stuff & if they go broke your other stocks will also but ofcourse A lot of stock is being put on the market that is worthless but people will bite I try to koep away from them But there s new stock that comes on that proves to be A one but one must certainly be on the look out well I am no scholer as got no Education But have always orked hard I helped survey the UPRR & ROCK Islad RR through this sec wezt & many buffalos & wild animals roming over the west My Father came west Early & got in the thourbread Cattle buis & then established himself in high Grade cattle & sold for years from 2to 25o Bull Calves to Mexico Cattle men the Bull calves at weaning time at 5o dollars A head when ordenary Calves where sellin at 6to lo A head I bet ter quit but you gave me your histery & I am guiveing yo mine only You did not tell me how old you where but I bet not as old as I am Yours Truly

In Reply I Said:

Dear Mr...

Thank you for your letter of March 30th. You ask my age. I am 62 this month. I am not as old as you are. I am not as smart, either.

With best wishes, I am.

Cordially yours,

THE MODIFIED GEISINGER INDICATOR

BACKGROUND

THE Modified Geisinger Indicator is a series of numbers which, in the past, have gone up and down ahead of corresponding movements of the Federal Reserve Board Index of Industrial Production. Thd Modified Geisinger Indicator thus throws some light on the probabilities of the future.

The F. R. B. Index of Industrial Production measures physical production in the U. S. A. It is a weighted average of tons, yards, gallons, and numbers of things produced each month.

The Modified Geisinger Indicator is the sum of two Indicators, the Geisinger Indicator and a First Difference Indicator.

The Geisinger Indicator was invented by Robert Geisinger. It is derived from figures which are published each month in the *Survey of Current Business*. It is charted for you as Curve A on pages 114 and 115.

Curve B on these same two pages charts the First Difference Indicator, which is merely the amount by which the smoothed F. R. B. Index is above or below the value for the preceding month. The smoothing is effected by means of a centered 3-month moving average and a 2-month moving average posted to the second position.

Curve C charts the sum of the values of Curves A and B. This curve is called the Modified Geisinger Indicator. It suggests in a general way what the F. R. B. Index may do some eight months later.

Curve D charts the values of the F. R. B Index of Industrial Production.

Curve E re-charts curve C, advancing it by 8 months. This advance is for two reasons (1) so that you can more easily compare the past behavior of the Modified Geisinger Indicator with the behavior of the F. R. B. Index, and (2) so that you can have a better idea of what the F. R. B. Index may do in the future.

FORECAST

THE Indicators continue to suggest caution for the balance of the year.

The Geisinger Indicator is down; so is the 1st Difference Indicator; and of course their sum - the Modified Geisinger Indicator - is too.

The Federal Reserve Board Index of Industrial Production continues level at 146.

Actual figures for the various indicators are shown below.

E. R. Dewey

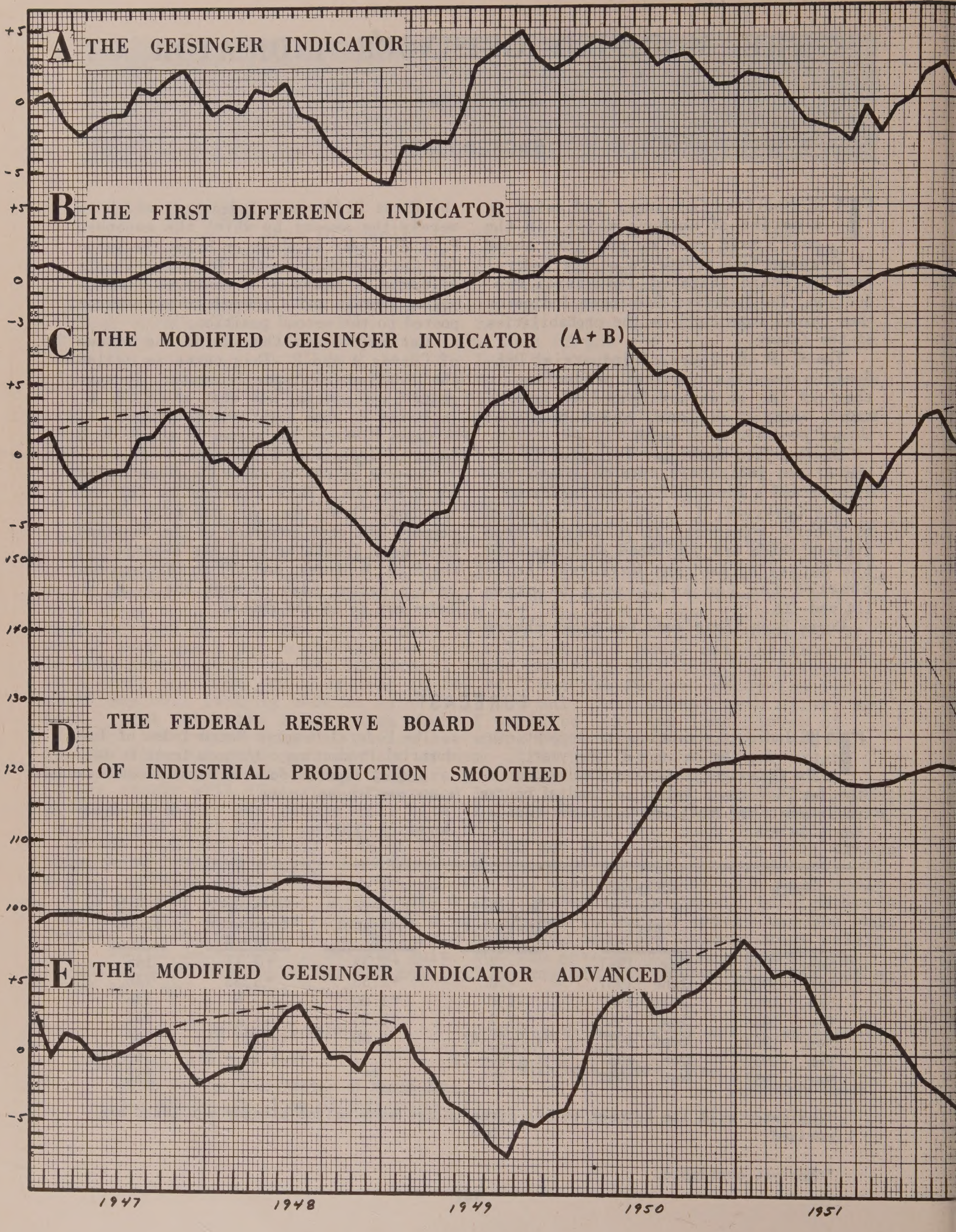
April 25, 1957

Month	Advanced (8 Months Later)	Geisinger Indicator A	1 st Difference Indicator B	Modified Geisinger Indicator A+B	F.R.B. Index D
Sept. 1956	May 1957	-.2	+2.33	+2.13	145
Oct. 1956	June 1957	-.8	+2.33	+1.53	146
Nov. 1956	July 1957	-1.6	+1.00	-.6	146
Dec. 1956	Aug. 1957	-2.2	+0.33	-1.87	147
Jan. 1957	Sept. 1957	*(-3.2; 0)	0.00	*(-3.2; 0)	146
Feb. 1957	Oct. 1957	*(-4.0;+.2)	-0.17	*(-4.17;+.03)	146
Mar. 1957	Nov. 1957	**	**	**	146

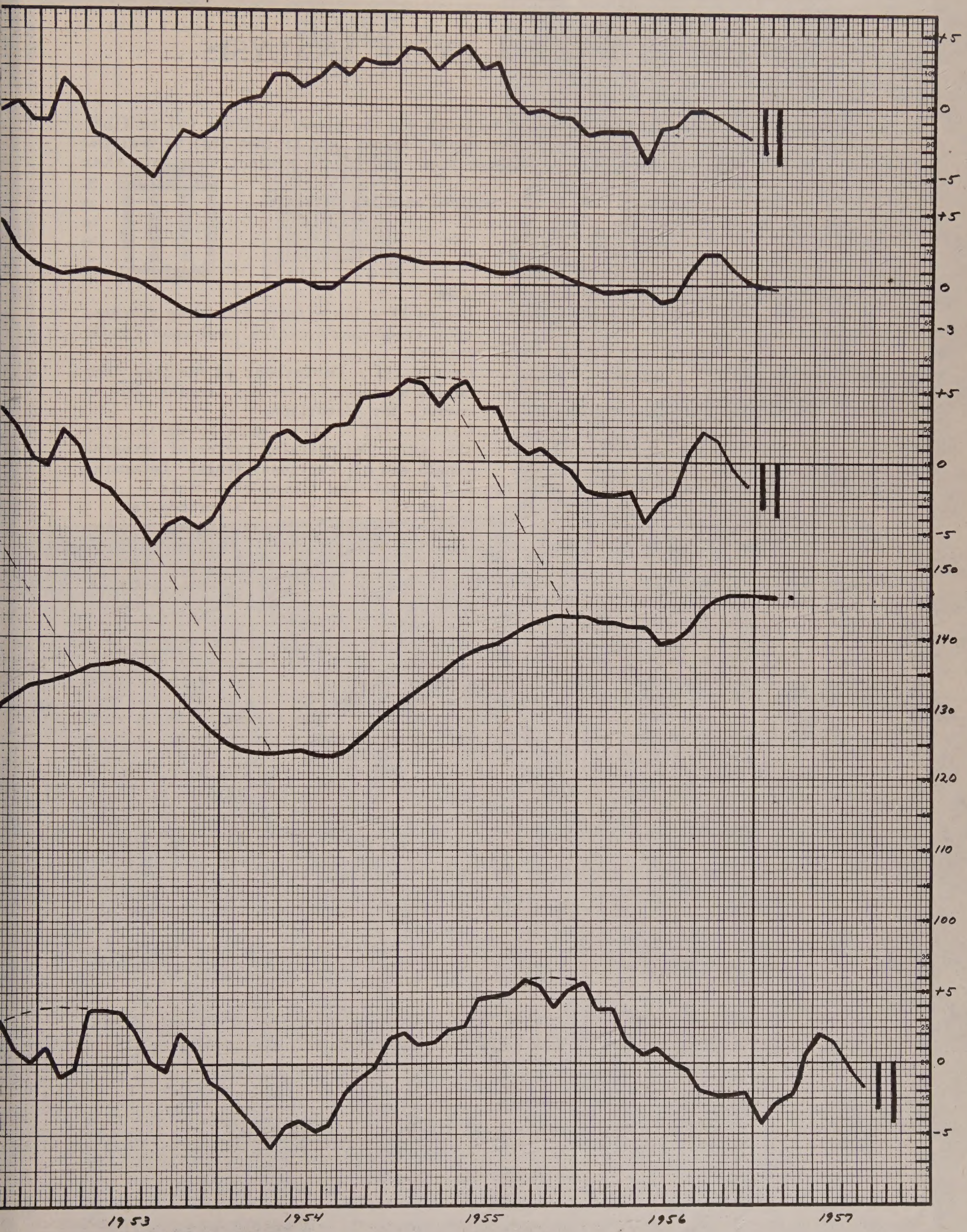
*Indicator will lie between values given unless some values already published are revised.

**Not yet available.

THE MODIFIED GEISINGER INDICATOR



OF INDUSTRIAL PRODUCTION



Turn to page 141 for the forecast.

Mr. H. A. Musham
741 No. Rush St.
Chicago, Ill.

HOW TO MAKE A CYCLE ANA

The text is a practical one designed to teach you the elements of how (a) to find cycles, (b) to determine their lengths, strengths, shapes, and timings, (c) to isolate them, (d) to evaluate them, (e) to combine them, and (f) to project them into the future.

No mathematics except arithmetic are required as a pre-requisite.

An outline of the text follows.

Lesson I - Charts and how to use them in cycle analysis—arithmetic charts; ratio charts; interpolation.

Lesson II - Use of numbers—short cuts; some checking tricks. Averages—arithmetic means; geometric means; medians; modes. Which average to use. Index numbers--how to make them and how to use them in cycle analysis. Tabulation. Logarithms. Graphic logarithms.

Lesson III - How to make and use moving average trends for cycle analysis. Geometric moving averages; moving medians.

Lesson IV - How to remove trend for cycle analysis.

Lesson V - Cycle Analysis. How to make a cycle analysis of a series of numbers--a detailed outline. The forces creating time series. Synthesis. The proper way to combine cycles. How to combine growth, periodic and random components. Analysis. How to separate growth, periodic, and random components. Reversing cycles.

Lesson VI - How to get hints of cycles. Inspection. Counting intervals. Thumbing. The graduated scale. The time chart.

Lesson VII - How to make and use the periodic table to reveal the typical or average shape, strength, and timing of the cycle. How to rotate the periodic table to compensate for trend. Use of color in the periodic table.

Lesson VIII - How to use a periodic table to determine the length of the cycle.

Lesson IX - How to position the cycle.

Lesson X - Randoms: Three ways to minimize them.

Lesson XI - The effects of moving averages upon trend, upon cycles, and upon random numbers.

Lesson XII - Deviations of numbers from moving averages of various lengths. How to correct for distortion.

Lesson XIII - Three ways to definitize the cycle. Definitizing cycles of integral length and of fractional length. Determining the calendar timing of a cycle.

Lesson XIV - How to make a periodogram.

Lesson XV - Sine and cosine curves and how to fit them.

Lesson XVI - How to make a simple harmonic analysis. How to make a multiple harmonic analysis. Use and limitations of harmonic analysis.

Lesson XVII - How to compute moving percentages, moving ratios, and moving differences. Their effect upon cycles. How to use them to detect hidden cycles.

Lesson XVIII - The straight line trend. When to use it for cycle analysis. A short cut method for computing it.

Lesson XIX - How to use periodic tables to separate one cycle from another.

Lesson XX - Weighted moving averages. How to use them to reveal hidden cycles.

Lesson XXI - How to make a Streiff Analysis.

Lesson XXII - How to determine trend. How to project trend and cycles into the future.

Lesson XXIII - Tests for the significance of cycles.

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